Serial No.: 09/733,756

Filed: December 8, 2000

**VERSION WITH MARKINGS TO SHOW CHANGES MADE** 

**IN THE SPECIFICATION:** 

Paragraph beginning at page 6, line 4, has been amended as follows:

-Figure 1 (SEQ ID NO:1) shows an embodiment of a nucleic acid (mRNA) which includes a sequence

which encodes a differentially expressed protein provided herein, CHA4. Start (ATG) and stop (TAG)

codons are underlined. -

Paragraph beginning at page 6, line 7, has been amended as follows:

- Figure 2 (SEQ ID NO:2) shows an embodiment of the amino acid sequence of CHA4.-

Paragraph beginning at page 7, line 28, has been amended as follows:

In a preferred embodiment, the differentially expressed sequences are those of nucleic acids

encoding CHA4 or fragments thereof. Preferably, the differentially expressed sequence is that depicted

in figure 1 (SEQ ID NO:1), or a fragment thereof. Preferably, the differentially expressed sequences

encode a protein having the amino acid sequence depicted in figure 2 (SEQ ID NO:2), or a fragment

thereof. In a preferred embodiment, CHA4 is human Ephrin-A3.—

Paragraph beginning at page 13, line 8, has been amended as follows:

- The extracellular domains of transmembrane proteins are diverse; however, conserved motifs

are found repeatedly among various extracellular domains. Conserved structure and/or functions

have been ascribed to different extracellular motifs. For example, cytokine receptors are characterized

by a cluster of cysteines and a WSXWS (W= tryptophan, S= serine, X=any amino acid; SEQ ID NO:3)

motif. Immunoglobulin-like domains are highly conserved. Mucin-like domains may be involved in

cell adhesion and leucine-rich repeats participate in protein-protein interactions.—

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Paragraph beginning at page 15, line 4, has been amended as follows:

- In a preferred embodiment, the sequences which are used to determine sequence identity or

similarity are selected from the sequences set forth in the figures, preferably those shown in Figures

1 and 2 (SEQ ID NOS:1-2) and fragments thereof. In one embodiment the sequences utilized herein

are those set forth in the figures. In another embodiment, the sequences are naturally occurring

allelic variants of the sequences set forth in the figures. In another embodiment, the sequences are

sequence variants as further described herein. -

Paragraph beginning at page 15, line 31, has been amended as follows:

- Thus, "percent (%) nucleic acid sequence identity" is defined as the percentage of nucleotide

residues in a candidate sequence that are identical with the nucleotide residues of figure 1 (SEQ

ID NO:1). A preferred method utilizes the BLASTN module of WU-BLAST-2 set to the default

parameters, with overlap span and overlap fraction set to 1 and 0.125, respectively.-

Paragraph beginning at page 46, line 25, has been amended as follows:

- In a preferred embodiment, as outlined above, screens may be done on individual genes and gene

products (proteins). That is, having identified a particular differentially expressed gene as important

in a particular state, screening of modulators of either the expression of the gene or the gene product

itself can be done. The gene products of differentially expressed genes are sometimes referred to

herein as "differentially expressed proteins" or "cancer modulating proteins". Additionally, "modulator"

and "modulating" proteins are sometimes used interchangeably herein. In one embodiment, the

differentially expressed protein is termed CHA4. CHA4 sequences can be identified as described

herein for differentially expressed sequences. In one embodiment, CHA4 sequences are depicted

in Figures 1 and 2 (SEQ ID NOS:1-2). The differentially expressed protein may be a fragment, or

alternatively, be the full length protein to the fragment shown herein. Preferably, the differentially

expressed protein is a fragment. In a preferred embodiment, the amino acid sequence which is used

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to determine sequence identity or similarity is that depicted in figure 2. In another embodiment, the

sequences are naturally occurring allelic variants of a protein having the sequence depicted in figure

2. In another embodiment, the sequences are sequence variants as further described herein.-

On page 69, immediately preceding the heading "CLAIMS," the enclosed text entitled "SEQUENCE

LISTING" was inserted into the specification.

IN THE CLAIMS:

Claim 27 has been amended as follows:

- 27. A method for inhibiting breast cancer or colorectal cancer in a cell, wherein said method

comprises administering to a cell a composition comprising antisense molecules to a nucleic acid

of figure 1 (SEQ ID NO:1). -

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